

U.S. Navy (Robert N. Scoggin)

The nature of modern warfare demands that we fight as a joint team. This was important vesterday, it is essential today, and it will be even more imperative tomorrow.

—John M. Shalikashvili

century will little resemble those of today. At the upper end of the conflict spectrum, long-range and highly lethal precisionguided munitions—launched from an assortment of ground, naval, and air platforms and guided by a complex web of command and surveillance as-

sets—will continue to blur the lines separating land, sea, and air warfare. Feedback will be immediatenot just from battle

he battlefields of the next

damage assessments conducted by joint force commanders (JFCs) but from anyone on or near the scene with access to commercial satellite communication technology. Graphic reports and imagery from the battlefield by journalists, relief workers, and other noncombatants will quickly sway public opinion. Concern over casualties, collateral damage, and fratricide will pressure political decisionmakers and military leaders to end kinetic conflicts as rapidly and decisively as possible.

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**Report Documentation Page** 

Form Approved OMB No. 0704-0188 Victory will depend on the ability of JFCs to master the "system of systems" composed of multiservice hardand soft-kill capabilities linked by advanced information technologies. A JFC orchestrating a battle must rapidly process and disseminate information to his forces and deny an enemy sanctuaries of time and space. In sum, joint forces will have to be thoroughly integrated to fully exploit the synergism of land, sea, and air combat capabilities.

#### **Evolution of Joint Warfare**

Although joint warfare is as old as our Republic (witness the battle of Yorktown), joint force integration (JFI)

# since 1990 efforts have evolved from "specialized" to slightly less than "synergistic" joint warfare

is a relatively new phenomenon. After a series of operational failures in the 1970s and 1980s, Congress passed the Goldwater-Nichols Act to integrate individual service capabilities into a more efficient joint team. This law has contributed to a number of joint operational successes, including Panama (1989), Kuwait and Iraq (1991), and Haiti (1994).

**Evolution of Joint Operations** Coherent Joint Common Tactical and Operational Objective **Synergistic** Natural Rhythms and Joint Cycles **Common Doctrine Mutually Supporting** Orchestrated for Specialized Joint Objective Multi-service, Multi-dimensional. Multi-functional Driven by Common Operational Objective

Notwithstanding the great improvement in joint operations over the last decade, challenges confronting the Department of Defense today require a greater integration of service capabilities. An increasing number of technological and organizational challenges to warfighting, together with shrinking DOD resources, have forced a rethinking of national security and military strategies.

During the Cold War, the United States and its allies established large standing armies with redundant capabilities to counter the Soviet threat. Today forces built on mass alone are becoming both less necessary and too ex-

pensive to field and maintain. As a result, in an era in which precision weapons make massive forces lucrative targets, the effectiveness of joint operations will depend more on integrating service maneuver and precision

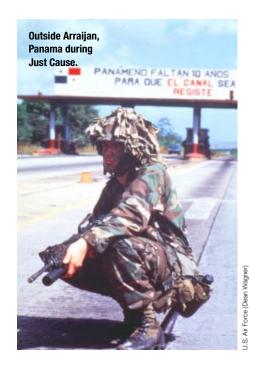
strike capabilities than on marshalling large service components.

Since 1990 the efforts of the Armed Forces have evolved from "specialized" to slightly less than "synergistic" joint warfare. Operation Desert Storm represents specialized joint warfare in that the coalition employed an impressive array of multinational, multiservice, multidimensional, and multifunctional forces with the common objective of ousting Iraq from Kuwait. The United States and its allies had the lux-

ury of powerful, massed, deeply redundant, separate services fighting in the same battlespace. Service capabilities were deconflicted rather than integrated.

Although specialized joint operations in the Persian Gulf clearly improved on multiservice operations prior to Goldwater-Nichols, the United States can no longer afford the inefficiencies of a system that brings redundant forces together for the first time on the battlefield.

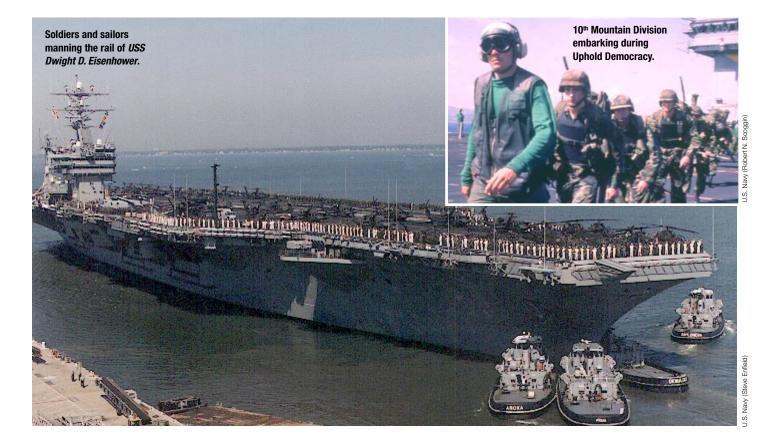
Joint operations since Desert Storm, such as Restore Hope in Somalia, Uphold Democracy in Haiti, and Joint Endeavor in



Bosnia, approach the level of synergistic joint operations. Synergistic joint operations are mutually supporting in that JFCs orchestrate separate service capabilities for common tactical objectives. Yet the lack of common joint doctrine has so far prevented the Armed Forces from reaching the synergistic joint level.

To achieve *Joint Vision 2010*—the Chairman's conceptual template for how the military will channel resources and leverage technology for greater joint effectiveness—we must be able to conduct coherent joint operations. JFCs must be able to integrate service capabilities to achieve common tactical and operational objectives. These integrated joint forces must accommodate the natural battle rhythms and cycles of land, sea, and air warfare.

At the current rate of progress, the U.S. military should achieve coherent joint operations in five to seven years. By the early 21st century the Nation will have a joint integrated force that can fully exploit the goals of *JV 2010*: dominant maneuver, precision engagement, full-dimensional protection, and focused logistics.



## The ACOM Role in JFI

The time has come to merge these [CONUS-based forces] into a combatant command whose principal purpose will be to ensure the joint training and joint readiness of our response forces.

-Colin L. Powell

The need for U.S. Atlantic Command (ACOM) surfaced in the February 1993 Report on the Roles, Missions, and Functions of the Armed Forces of the United States prepared by the then Chairman, General Colin L. Powell. Faced with fewer forward-based forces and recognizing the need to facilitate JFI evolution, Powell recommended to the President and Secretary of Defense that ACOM be established. ACOM assumed its new responsibilities as joint force integrator, trainer, and provider of the majority of the Nation's combat forces in the 1993 revision of the unified command plan.

As a natural extension of the congressional intent to enhance jointness, the establishment of ACOM became another milestone in DOD implementation of Goldwater-Nichols.

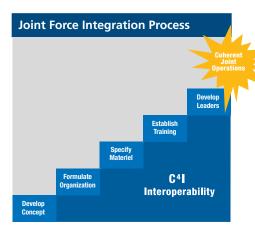
As principal advocate of JFI and joint training, ACOM maximizes the unique capabilities of its service components (Forces Command, Atlantic Fleet, Marine Forces Atlantic, and Air Combat Command) by melding their combat elements into coherent joint warfighting teams prior to deployment.

## **Joint Force Integration**

The process of ensuring interoperability and efficient use of the total force takes place under the rubric of JFI. Four principles are used in achieving integration and coherent joint operations:

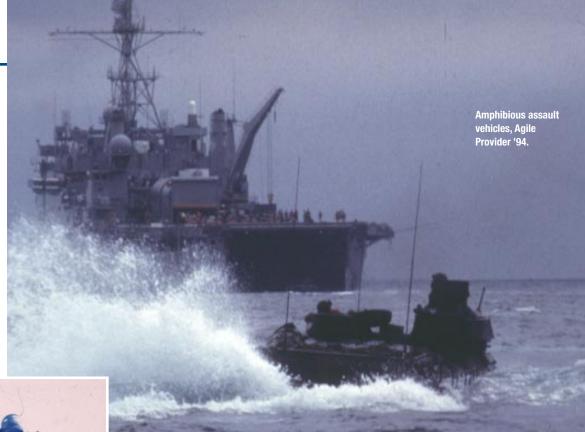
- future orientation—leveraging technological advances
- full interoperability—enabling all joint and service systems to operate effectively together
- functionality across the conflict spectrum—providing a working capability to warfighters
- enhanced competitive advantage providing a significant edge over any adversary.

JFI also provides the intellectual framework and vision to exploit competitive advantages in weapon, sensor,



and information technologies. Interoperable technology will not assure success in itself. Our future joint forces also need a sound conceptual framework, supported by common joint doctrine and logical procedures, to rapidly and efficiently acquire, disseminate, and act on the critical sensor and intelligence information that passes through those systems.

JFQ FORUM



Harrier hovering over USS Nassau.



establish training—determine tasks, conditions, and standards for using equipment and organization to support the concept, and apply them during joint force training to personnel/units, both individually and collectively, to accomplish the concept (includes establishing joint mission essential tasks and joint tactics, techniques, and procedures)

develop leaders—finally, educate leaders in the concept from purpose to theory, organization to equipment, and training to application for continued success.

Conceptually, JFI may be viewed as a five (but not necessarily sequential) step process.

- develop concept—formulate philosophy and/or doctrine, produce a plan of operations, determine overall costs and benefits, and select methods of employment
- formulate organizational structure—design aspects of command and control, span of control (centralized versus decentralized), layout, unit size and composition, and tasks
- specify material—identify requirements for equipment and/or weapons supporting the concept and organizational structure (includes not only specific material, but numbers, force mix, interoperability, support systems, and C⁴I to sustain new or emerging technology)

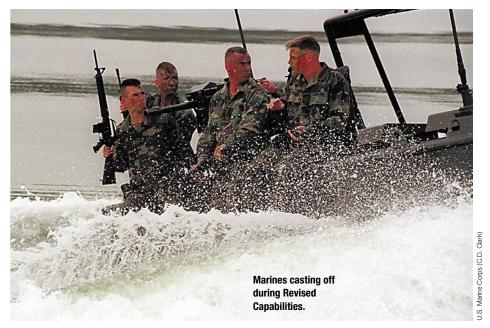
## Joint Interoperability

JFI requires the complete interoperability of weapons as well as command, control, communications, computers, intelligence, surveillance, and reconnaissance (C<sup>4</sup>ISR) systems. Due to limited procurement funding and resiliency of legacy systems the lack of interoperability remains a major obstacle to JFI. Many interoperability problems encountered during the Gulf War endure. As a key element, JFI seeks to minimize problems caused by legacy systems while moving toward an efficient and responsive battlefield C<sup>4</sup>ISR architecture with "plug and fight" systems.

In the future, the Joint Battle Center—an activity of the Joint Staff which is collocated with the ACOM Joint Training Analysis and Simulation Center (JTASC)—will possess the expertise to evaluate C<sup>4</sup>ISR tactical and operational concepts and identify technologies which have the greatest potential for warfighters.

ACOM is also working closely with the Joint Requirements Oversight Council (JROC) and Joint Warfighting Capabilities Assessment (JWCA) teams on interoperability issues while striving to achieve information superiority and maintain it into the next century. The Battlefield C<sup>4</sup>I project has already completed one study and is pursuing enhancements to the interoperability of various C<sup>4</sup>I systems available to joint commanders.

Moreover, ACOM is playing a major role in ensuring that the quintessential joint operation, theater missile defense, fits into an overarching joint warfare construct. Another joint initiative is the assessment of the limitations and capabilities of offensive and defensive information warfare as seen from the perspective of theater CINCs on both the strategic and operational levels.



In support of joint interoperability, ACOM is sponsoring a series of advanced concept and technology

the joint training and exercise process must focus on the requirements of supported CINCs

demonstrations (ACTDs) in collaboration with the Advanced Research Project Agency. Such demonstrations need a joint advocate to rapidly field promising technologies that complement overarching joint warfighting concepts such as battlefield C<sup>4</sup>I interoperability. One example is the Predator unmanned aerial vehicle.

#### **Joint Training and Exercises**

To convert a plan from a forced entry operation into one conducted in an atmosphere of cooperation and coordination, within a period of about 10–12 hours, and to get the word down to the lowest levels of those who had to execute, could only be done by a team that had trained together—not only in each of the services, but trained in a joint environment.

—Henry H. Shelton

The joint training and exercise process must focus on requirements of supported CINCs. ACOM has developed a joint requirements-based

process to effectively and efficiently meet these training needs while reducing OPTEMPO and costs. This process

is built on a comprehensive list of common joint mission essential tasks (JMETS), developed in concert with supported CINCs, with designated conditions

and measurable standards.

To focus on the requirements of supported CINCs, ACOM identified the types of training already being conducted and where jointness needed to be emphasized—primarily at the joint task force level. A three-tier model was built onto the existing field and service-specific training.

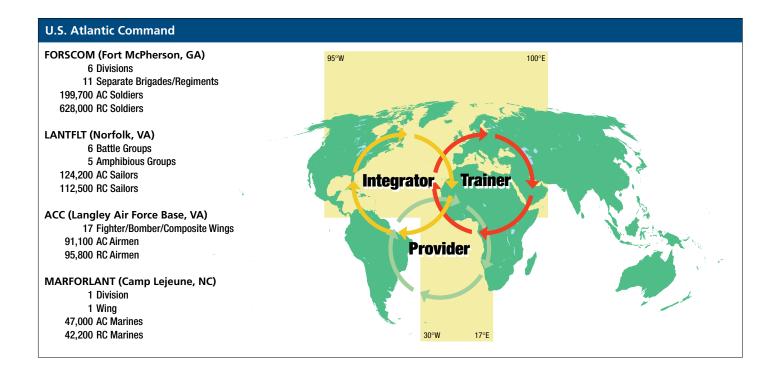
The tier 1 foundation is where soldiers, sailors, marines, airmen, and coastguardsmen gain core competencies by training on service mission essential tasks. In tier 2, joint interoperability training is achieved through field training exercises based on a list of critical interoperability tasks from supported CINCs. ACOM assigns training objectives, coordinates component participation, provides joint transportation funding, assists with joint exercise control groups, and assesses joint doctrine and interoperability. The

frequency and size of the field exercises have been dramatically reduced and refocused. Tier 3 stresses training JTF commanders and staffs by combining tailored doctrinal instruction with operations order development. A realistic computer-aided command post exercise then tests the operations order. The Unified Endeavor (UE) series of exercises serves as the primary vehicle and provides truly "postgraduate level" JTF staff instruction without the cost of large field exercises. In each training program ACOM pursues an aggressive after-action reporting process to evaluate and provide rapid feedback on joint doctrine development and interoperability.

The centerpiece for tier-3 JTF training is JTASC, where advanced modeling and simulation technology, distributed secure communications (including video teleconferencing), and other C<sup>4</sup>I capabilities allow commands from around the world, including supporting and supported CINCs, to participate in these challenging and realistic exercises.

Using complex scenarios based on real-world threat, environmental, and terrain data bases, JTASC provides both JTF commanders and staffs with an environment in which to work through a wide range of organizational, operational, equipment, and doctrinal issues ranging from strategic and theater-lift limitations to rules of engagement, joint target selection, and the placement and use of fire support coordination lines (FSCL). UE exercises at JTASC afford an invaluable means of assessing joint doctrine in a realistic environment short of actual combat. As General Hartzog, commander of U.S. Army Training and Doctrine Command and formerly the first ACOM deputy commander in chief, often points out: "Doctrine . . . represents a consensus of how forces conduct operations today....[It] evolves as questions about concepts are answered or as concepts are validated through analyses, experiments, exercises, or actual operations."

Another major benefit of JTF training at JTASC is that we no longer have to field an army to train a general. In addition to cost savings, we also reduce PERSTEMPO and family separation time on heavily tasked



troops. The focus is on JTF commanders, staffs, and C<sup>4</sup>I systems instead of soldiers, sailors, marines, and airmen. Combat forces can then devote limited training time and resources to improving combat skills rather than serving as exercise training aids for JTF staffs.

## **Beyond Joint**

While perfecting JFI, we must understand that forces will continue to operate in complex environments. In addition to preparing active duty personnel, a growing DOD dependence on the Reserve components demands that the training and readiness of Reserve forces and National Guard units parallel that of the active components. Training and readiness oversight (TRO) is a critical step in bringing Reserve component forces into the total joint force structure. TRO presents CINCs with both extraordinary challenges and opportunities. ACOM will work to develop the highest level of joint integration possible while also maintaining the cost effectiveness of Reserve forces. We will also strive to match Reserve readiness to active standards where possible.

Future joint operations are likely to be combined as well and require extensive interagency participation and coordination. Therefore the next step in enhancing joint force readiness will be to coordinate joint training and integration with combined and interagency training and exercises. Our recent efforts in Haiti, along with the Implementation Force experience in Bosnia, provide us with the seasoning to fulfill that important training mission.

#### **Joint Integration and Efficiency**

Congress enacted Goldwater-Nichols shortly after the high-water mark was reached in the defense buildup during the Reagan administration. Over the last ten years, budget reductions have reduced our combat force structure by more than 36 percent. DOD procurement has sunk to its lowest level since before the Korean War, while increased OPTEMPO is wearing out equipment at an accelerated rate.

Clearly, resources are insufficient to allow each of the services to maintain its current force structure, modernize, sustain combat readiness, and perform all required missions. Thus we must reduce duplication and become more efficient. We must do what corporations have done over the past decade—restructure for a changed world, focus on core competencies, and shed overhead that does not add value.

To maximize the capabilities of a smaller force, remaining forces must share technological improvements across the board. By leveraging technology to reduce unnecessary and burdensome command layers, improving joint training and exercises, and encouraging much greater efficiency in joint logistics, we can modernize and still maintain a robust combat force structure.

The changed security environment, combined with rapid advances in communications and weapons technology and mounting fiscal constraints, are pushing the Armed Forces toward greater integration. In future conflicts, smaller forces will have to arrive in-theater ready to fight as a joint team. For that reason, we must continue to work toward achieving coherent joint operations.

The unique position of ACOM as a geographic unified command with combatant control of the majority of



# joint force integration is not only the most efficient way to fight but can help solve growing budget problems

the Nation's combat capability and the mission to train, integrate, and provide joint forces to other forward CINCs, puts it in the forefront of fulfilling *Joint* Vision 2010. This blend of geographic and functional responsibilities gives a warfighting and joint orientation to the ACOM staff. Lessons learned from actual operations such as Haiti and the Unified Endeavor exercises have improved our effectiveness in training as well as in providing joint forces to other warfighting CINCs. By working to make the most effective and efficient use of combat capabilities, ACOM seeks to be a model for the future.

Focusing on core competencies and technology will reduce unnecessary command layers, streamline the decision cycle of JTF commanders, and generate coordinated maneuver and precision strike battle rhythms. Joint force integration is not only the most efficient way to fight but can help solve growing budget problems. JFI

will allow us to preserve deployable combat force structure while reducing unnecessary overhead that adds cost

but little value. Preserving combat force structure is essential if we are to build a capable force for the future. Tomorrow's leaders—the young NCOs—can only learn their profession in combat commands and not in the growing number of redundant staff positions.

This Nation deserves a more effective combat capability which is affordable in both

dollars and casualties. Fortunately, Goldwater-Nichols provides us with the legislative framework to address many of the structural challenges we face today, and JFI provides us with the process if we intend to shape our forces for the challenges of the 21st century.

